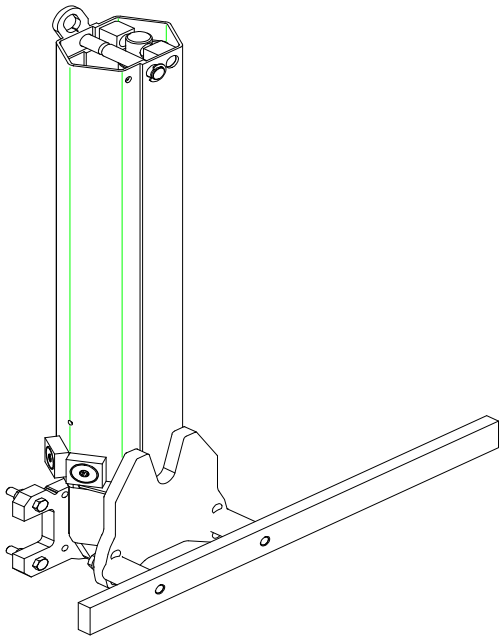
Operating Instructions

Column lifter S-4



MANUFACTURER:

CLEMENS GmbH & Co. KG
Maschinenfabrik
Rudolf - Diesel - Strasse 8
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Note :

The manufacturer cannot accept any liability for damage and losses due to non-compliance with the Operating Instructions or to the use of impermissible spare parts. The column lifter must not be modified, extended or converted in any way capable of impairing its safety without the manufacturer's prior consent.

Subject to change without notice!

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1. Foreword :

Dear user !

The **CLEMENS column lifter S-4** is a product from the range of **All-around weeders from CLEMENS** which will make it very much easier for you to maintain your vineyard all around the vine.

So that the column lifter can be used safely and correctly for its intended purpose, it is essential to read these Operating Instructions before using the product and scrupulously to follow all the instructions.

Ensure that you are familiar with the principle of operation of the column lifter and other fitted attachments before starting work.

General note :

- The column lifter may only be operated when all guards and safety mechanisms are in place and functioning correctly.

- All faults and malfunctions capable of impairing safety must be remedied immediately by specialist personnel.

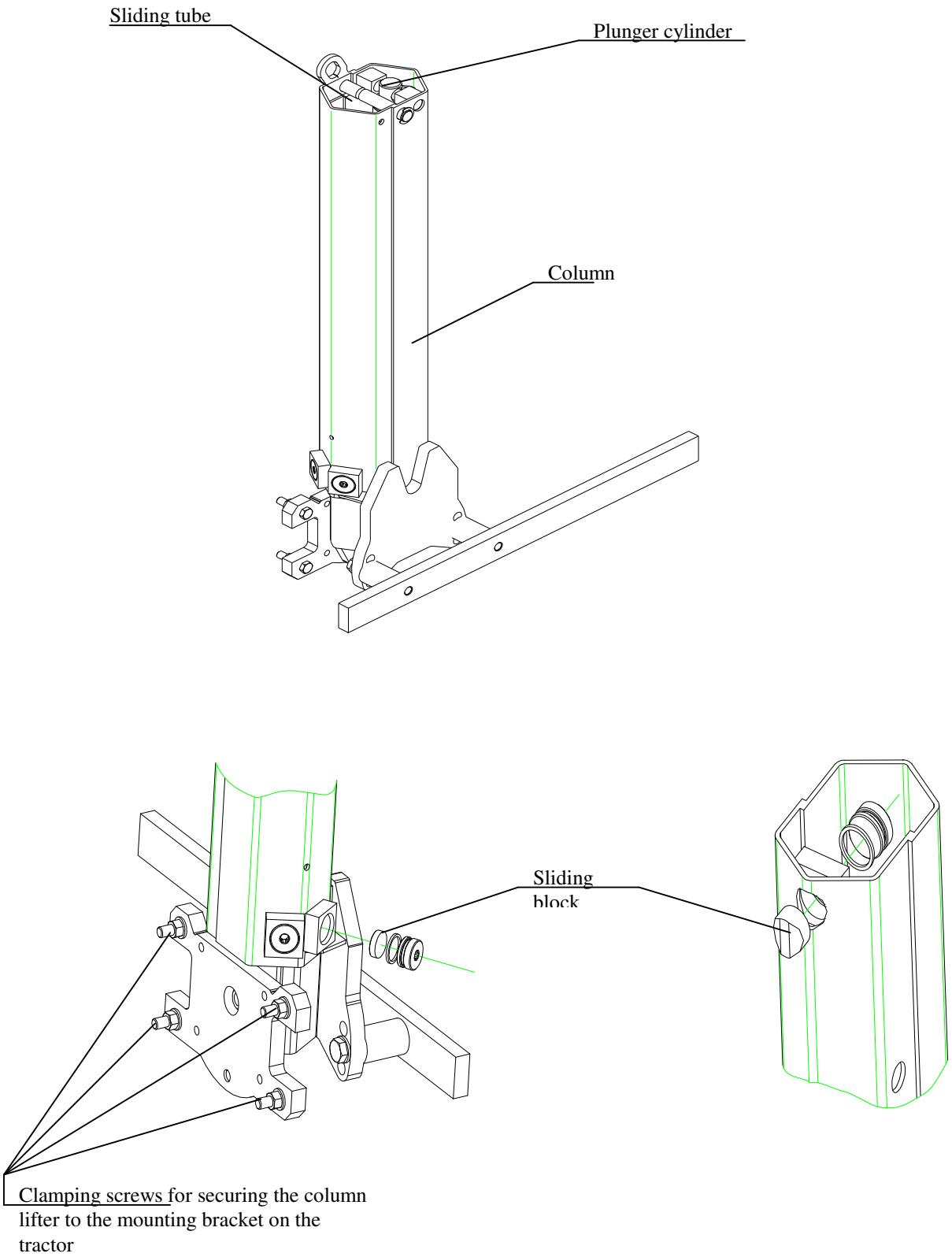
- The column lifter may only be used to lift out tillage implements mid-mounted on the tractor.

- The hydraulic connections of the column lifter must not be modified, as this will lead to malfunctions and endanger both yourself and other people.

- Repairs should only be carried out by specialist repairshops or the CLEMENS Customer Service Centre. Never undertake any unauthorized modifications on the device.

- The instructions supplied with the attachments must also be read with care.

Figure 1 : Column lifter S - 4


Sliding tube
Plunger cylinder
Column
Sliding block
Clamping screws for securing the column lifter to the mounting bracket on the tractor

2. Functional description of the column lifter S - 4:

(See Fig. 1)

The **CLEMENS column lifter S - 4** essentially comprises the following components:

- **Hexagonal sliding tube inside a hexagonal column as enclosure, with clamping plate**
- **Spindle adjustment as depth limitation (optional)**
- **Plunger cylinder with hose connections**

The column lifter is secured to the square block on the mounting bracket of your tractor by means of four clamping screws.
If your tractor does not include a mounting bracket, contact your dealer to obtain a suitable mounting bracket which the dealer can then install on your tractor.

The underlying principle of the column lifter is that a single-acting hydraulic cylinder raises or lowers your attachment when the hydraulic control is actuated from the driver's seat. The hydraulic cylinder has a maximum stroke length of 500 mm (19.7“).
The depth limitation and working height can be adjusted manually by means of a spindle adjustment.

The mounting bracket can be installed both vertically and horizontally.
The three sliding blocks on the hexagonal column ensure that the sliding tube is guided linearly and without play.

The column lifter is also optionally available with a double-acting hydraulic cylinder. In this case the maximum stroke length is 460 mm (18.1”).

3. Start-up and possibilities for installation:

* Before using for the first time:

- Read the Operating Instructions through carefully and ensure that you are familiar with the mode of operation of the column lifter and attachments.

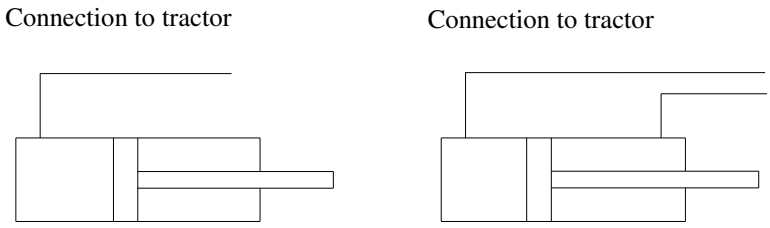
- Check that the hydraulic connections of the column lifter match those on your tractor.

* Possibilities for installation:

The column lifter S – 4 is secured to the square block on the mounting bracket of your tractor by means of four clamping screws.
If your tractor does not include a mounting bracket, contact your dealer to obtain a suitable mounting bracket which the dealer can then install on your tractor.

In order to install the column lifter, it can be raised with the aid of a hoist (e.g. chain hoist) and mounted on the tractor. It can be suspended from the crane lug at the top of the column lifter.

The column lifter S – 4 is connected to the hydraulic system of the tractor by means of quick-release detent couplings.



* Mounting appliances on the column lifter:

Appliances are mounted on the column lifter by sliding the clamping bracket of the appliance over the clamping rail of the column lifter and clamping them together by means of the clamping device provided on the appliance.

4. Maintenance and care:

The column lifter is designed to require minimum maintenance and care.

The following points must be noted, however:

- All screws and bolts must be checked after the first five hours of operation in order to ensure that they are secure.

- When cleaning the column lifter with a high-pressure cleaner and fitted attachments, care must be taken to ensure that the high-pressure jet is not directed towards bearings and seals or hydraulic connections, as this could lead to damage and premature failure of the lifter.

- After cleaning, the guideways should be lightly greased with sulphur-free grease. This increases the service life of your column lifter.

- The hydraulic fluid should be filtered at some point in the hydraulic system of the tractor.

- The grease nipples on the sliding tube must be lubricated every 20 hours of operation.

- If play develops between the sliding tube and column, the three sliding blocks must be adjusted until the sliding tube moves without play.

*** Possible reasons for a major rise in oil temperature:**

- Nominal size of the intake, delivery and return hose lines is too small.
- The oil tank (reservoir) is too small.
- The oil level in the tractor's hydraulic system is too low.
- The oil filter is fouled.
- The required oil quantity is not achieved.
- The setting of the pressure limiting valve on the tractor is too low.

5. Safety:

- Before starting to use the appliances, read through the associated operating instructions and follow their safety instructions without fail.

- No-one is permitted within a radius of at least 10 metres (11 yards) of the appliances mounted on the column lifter during operation, since all rotating or slewing tools constitute a hazard.

- Before use, the hydraulic lines must be examined for signs of damage and ageing and must be replaced if necessary. Note the expiry dates printed on the hoses and possibly also on the screw couplings.

Important: Splashing oil can cause injuries and endanger the environment!

- Goggles must be worn without fail if there is any risk of earth, stones or other objects being hurled aside during operation of the attachments.

- Maintenance and repair work may only be undertaken when the hydraulic lines have been disconnected from the tractor. (Risk of crushing!)

- The column lifter and appliances must never be used by anyone who has not read the safety and operating instructions.

- The accident prevention regulations of the employers' liability insurance association must be observed.

- Due to the noise generated when operating the appliances, hearing protection must be worn without fail when working on a tractor with open driver's cab.

- The column lifter and appliances may only be used during sufficient daylight in order to avoid the risk of accidents.

6. Technical data:

Weight (without appliances)	:	approx. 55 kg (121 lb)
Dimensions without appliances	:	L x W x H : 235 x 700 x 970 mm (59.7 x 57.6 x 38.2 “)
Stroke of the column lifter (maximum)	:	single acting: 500 mm (19.7“) double acting: 460 mm (18.1”)

EC Declaration of Conformity

in accordance with EC Directive 89/392/EEC "Machines", Annex II A

Manufacturer : CLEMENS & Co GmbH
Maschinenfabrik
Rudolf - Diesel - Strasse 8
D-54516 Wittlich / Mosel

We herewith declare that the mechanical design of the

Machine type : Column lifter S 4

complies with the following relevant regulations (Directives):

Directive on machines	89/392/EEC
	Official Journal of the EC, No. L 183/9
Amended by Directive	91/368/EEC
	93/44/EEC
	93/68/EEC

The following harmonized standards have been applied:

DIN EN 292 , Part 1
DIN EN 292 , Part 2

The following national technical standards and specifications have been applied:

DIN v 8418

Particulars of the authorized signatory

Surname, first name: Clemens, Bernd

Position : Managing Director

Wittlich, 08.09.2000
Place, date

_____
Legal signature

7. Spare parts list :

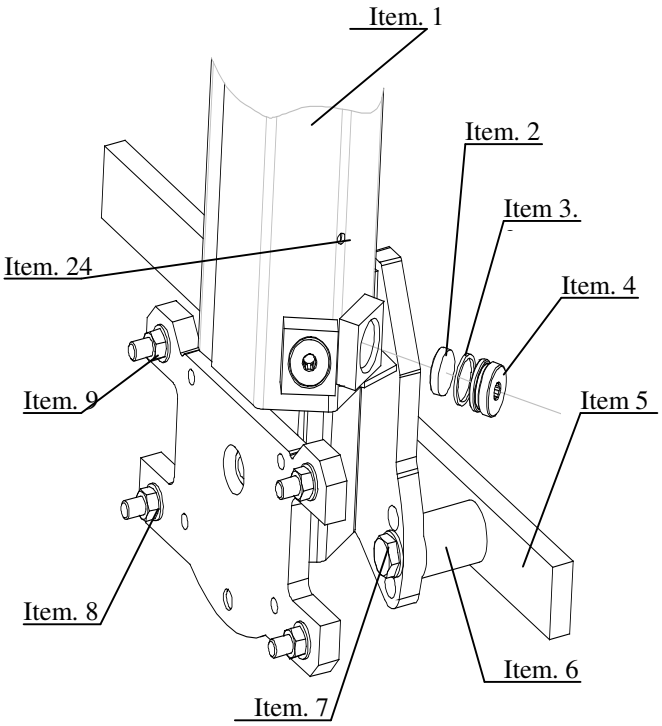
Customer Service address :

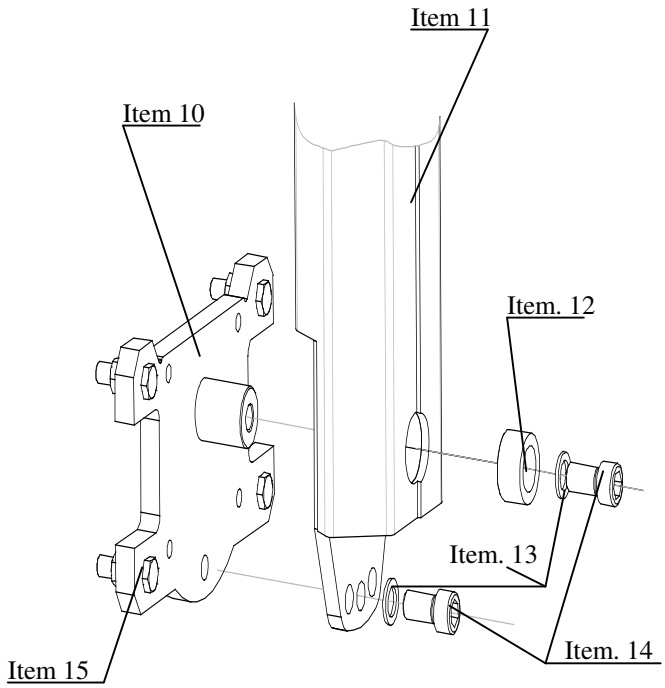
CLEMENS GmbH & Co KG
Maschinenfabrik
Rudolf - Diesel - Strasse 8
D-54516 Wittlich

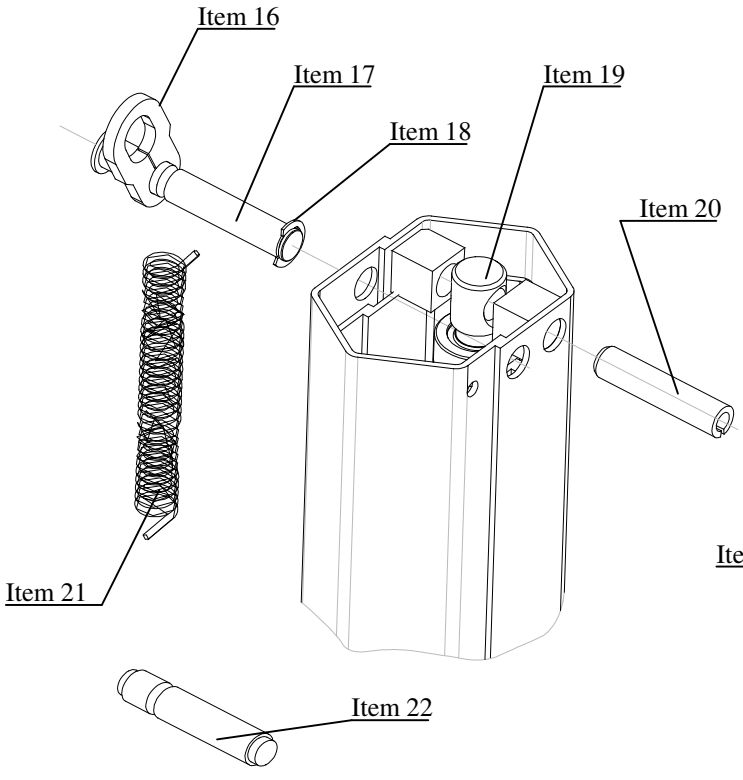
Phone: ++49-6571-929-220
Fax: ++49-6571-929-192
e-mail: info@clemens-online.com

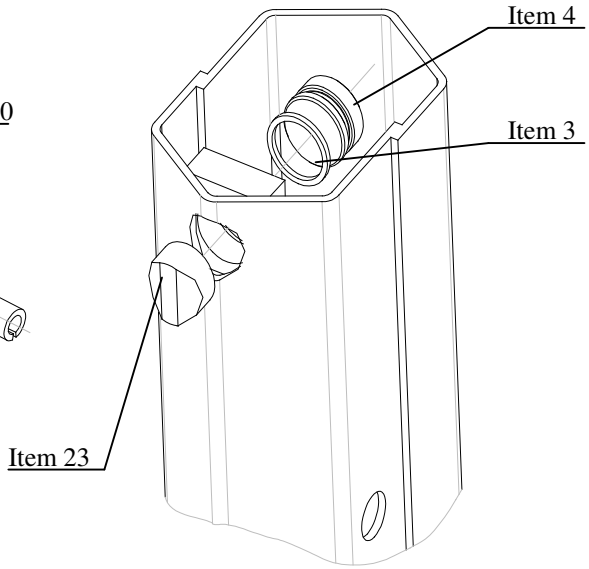
Item No.:	Qantity:	Description:	Order No.:
1	1	Sliding tube	CL 866.703000
2	2	Sliding block	CL 866.700003
3	3	Quard Ring	CW 780.025100
4	3	Adjusting screw	CL 866.700002
5	1	Clamping bar	CL 866.700009
6	2	Spacer	CL 866.700008
7	2	Hex bolt M 16 x 1,5 x 100	0960 16 100
8	4	Lock washer ø 12	CW 520.002900
9	4	Hex nut M 12	0934 12
10	1	Basic bracket	CL 866.701000
11	1	Column	CL 866.702000
12	1	Graduated ring	CL 866.700005
13	4	Lock washer ø16	CW 520.003100
14	2	Socket head cap screw M 16 x 35	0912 16 035
15	4	Hex bolt M 12 x 50	0931 12 050
16	1	Crane lug	CL 866.700006
17	1	Spring bolt	CL 866.704000
18	1	Lock washer ↵ 15 x 1,5	6799 15
19	1	Plunger cylinder **sa** ø 25, stroke=500	CL 895.660000
19	1	Hydr. cylinder **da** ø 22, stroke=460	CL 895.670000
20	2	Rollpin	CL 729.010003
21	1	Tension spring	CW 009.021200
22	1	Spring bolt, short	CL 866.700001
23	1	V-block	CL 866.700004
24	2	Impact grease nipple	CW 570.000100
25	1	Spindle unit	CL 866.709100
26	1	Guide bearing	CL 866.709200
28	1	Toggle hub	CL 866.709300
29	1	Toggle	CW 031.000100
30	1	Clamping sleeve Ø 3 x 24	1481 03 024
31	1	Clamping sleeve Ø 6 x 25	1481 06 025
32	1	Hex bolt M 10 x 55	0931 10 055
33	1	Hex nut M10	0985 10
34	1	Adjusting washer DIN988 ss13x19x1,5	0988 12 18 05
35	1	Washer DIN 9021 D 8,4 galv.	9021 08
36	1	Hex bolt M 8 x 12	0933 08 012

Drawing of column lifter S-4

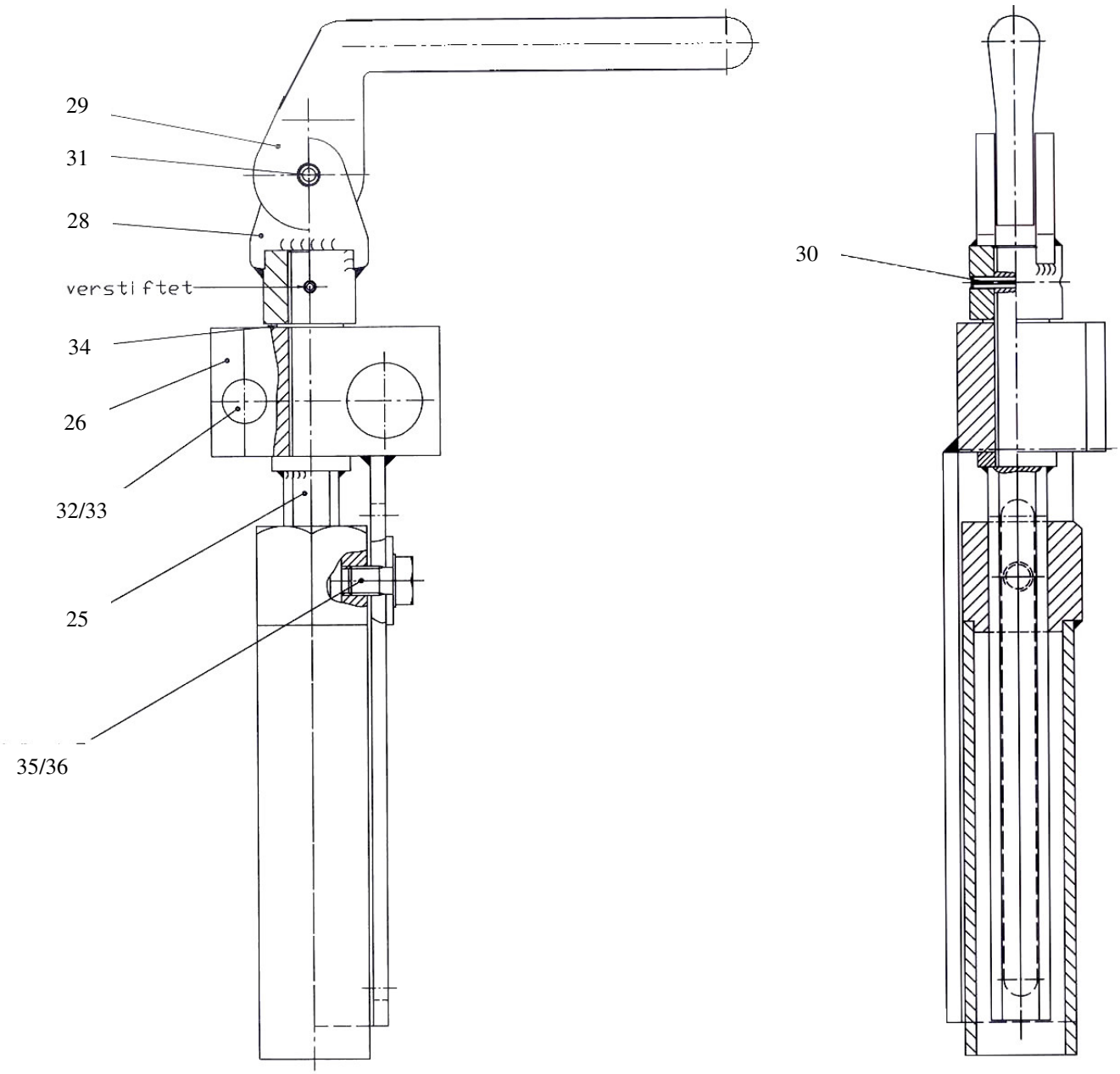






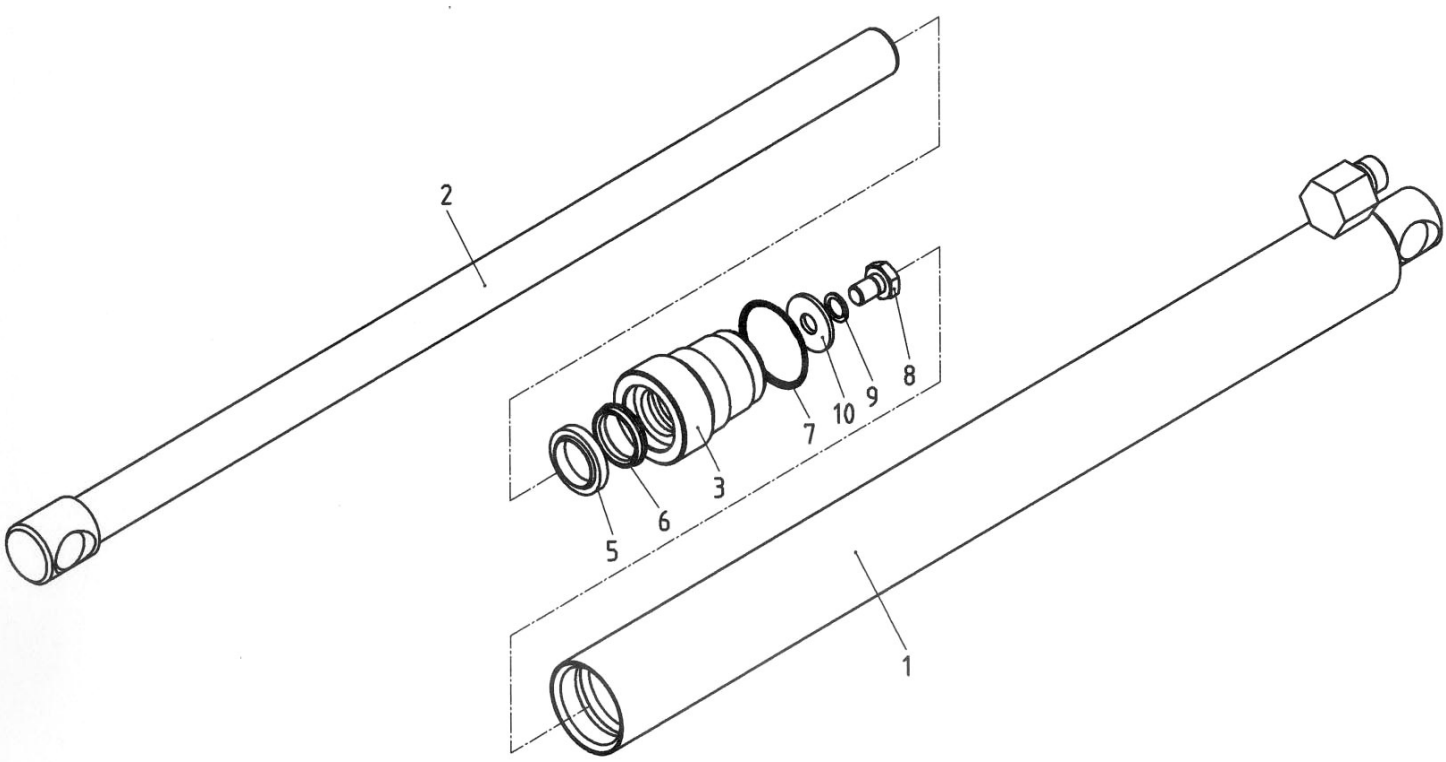


Drawing of the depth limiter



Spare parts list

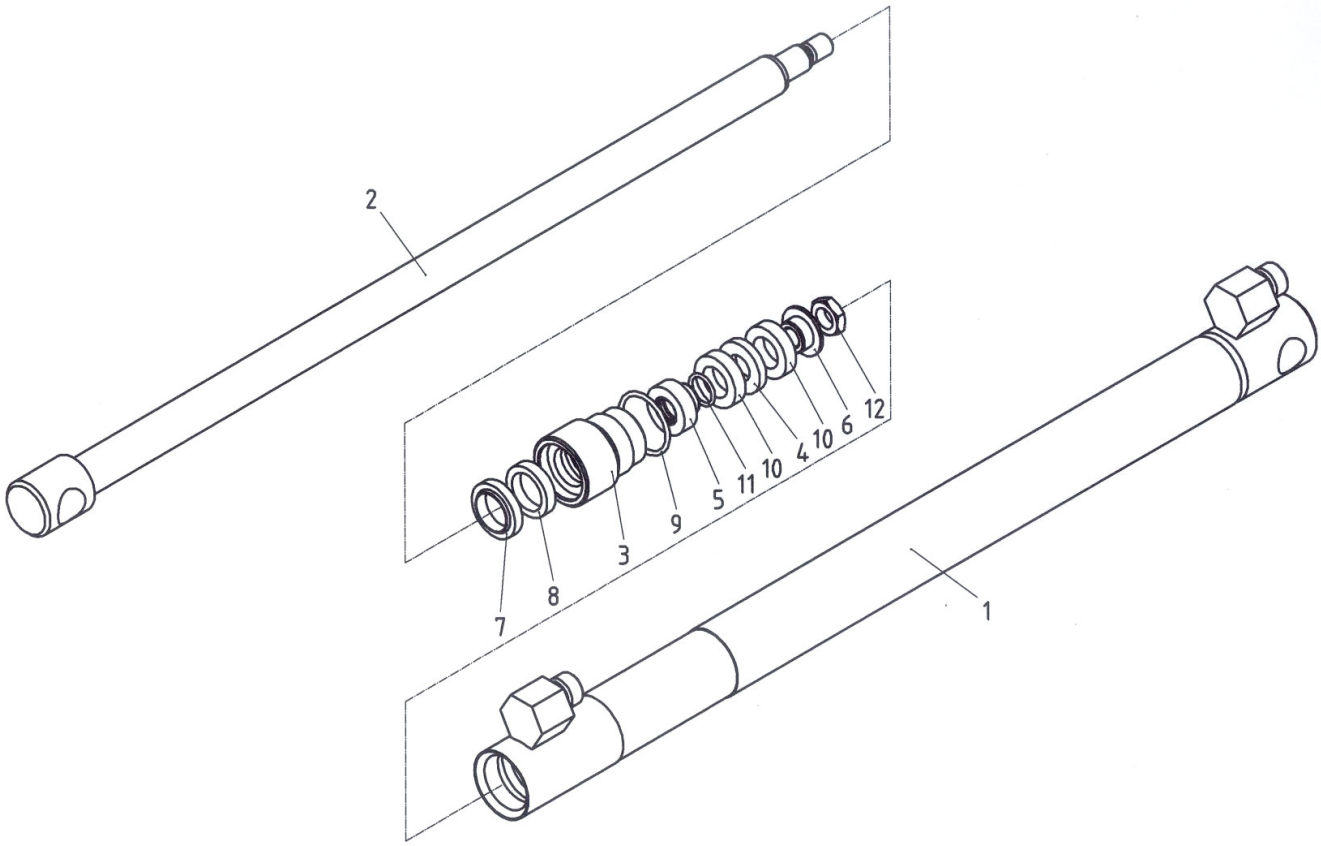
Hydr. cylinder CL895.660000



Item	Specification	Dimension	Quant	Order-N°
1	Cylinder pipe		1	CL895.661000
2	Piston		1	CL895.662000
3	Bushing		1	CL895.660001
5	Dust shield		1	CW780.003200
6	Piston seal		1	CW780.003100
7	O-Ring	∅42x2,5	1	OR04225
8	Hexagon screw	M10x20	1	093310020
9	Lock washer	∅10	1	CW520.002800
10	Washer	∅10,5	1	902110

Spare parts list

Double acting hydr. cylinder CL895.670000



Item	Specification	Dimension	Quant	Order-N°
1	Cylinder pipe		1	CL895.671000
2	Piston		1	CL895.672000
3	Bushing		1	CL895.400001
4	Guide		1	CL895.400004
5	Junk ring		1	CL895.400003
6	Junk ring		1	CL895.022003
7	Dust shield		1	CW780.003600
8	Piston seal		1	CW780.003000
9	O-Ring	∅32x2,5	1	OR03225
10	Seal kit		2	CW780.002900
11	O-Ring	∅15x2	1	OR01520
12	Hexagon nut (1/2)	M12x1,5	1	093612015